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ABSTRACT

This manual, one of a series for use in public education, provides an in-depth review of the current status of state and local smoke detector legislation. First, for the community considering a smoke detector law or ordinance, six decision points are discussed: which residential occupancy sub-classes will be affected; what the time factors are for compliance; how the law will be enforced; who will enforce the law; what type of detectors would be acceptable; and where and how many detectors shall be installed. The next section is an analysis (grouping together) of state smoke detector legislation followed by a state-by-state summary indicating type and/or extent of legislative action for each state. The next two sections provide seven sample state legislative acts and seven sample local legislative acts. Selected code sections from major model building codes and the National Fire Prevention Association are next discussed, including the basic building code, the national building code, the standard building code, the uniform building code, the one- and two-family dwelling code, and the life safety code. The concluding section on mobile homes discusses the effects of the National Mobile Home Construction and Safety Standards Act of 1974 on HUD regulations for mobile home fire detection equipment; state and local regulations for mobile homes; and the National Fire Prevention Standards, the 1974 edition of which was adopted by the American National Standards Institute (ANSI). (Related documents include Smoke Detector Resource Catalog, CE 017 146, and Smoke Detector Technology, CE 017 148.) (JH)

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SMOKE DETECTORS AND LEGISLATION

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U.S. DEPARTMENT OF COMMERCE
National Fire Prevention and Control Administration
Public Education Office

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TO THE READER:

To help you meet the challenge and opportunity of a smoke detector campaign in your community, the National Fire Prevention and Control Administration has prepared a series of smoke detector public education manuals. Written in cooperation with the National Bureau of Standards, these manuals are largely based on successful local programs. The five manuals illustrate a coordinated effort within the NFPCA. Research, data, fire service training, and public education each are important elements of our smoke detector activities.

Within the Federal government, the National Bureau of Standards, the Consumer Product Safety Commission, and the Department of Housing and Urban Development are all making unique contributions to smoke detector public acceptance. In the private sector, the National Fire Protection Association is actively involved in smoke detector installation standards development.

These manuals are presented in the full knowledge that while smoke detectors are essential, they are only part of your overall fire safety efforts. We hope you find them useful in your smoke detector public education campaign.

Howard D. Tipton

Howard D. Tipton
Administrator
National Fire Prevention and
Control Administration

VOLUME I: Smoke Detector Resource Catalog
A fact sheet on smoke detectors, guides to finding smoke detector materials, case histories of successful programs, a legislative overview, and evaluation techniques.

VOLUME II: Smoke Detectors: Moving the Public
A two-part manual on generating support through community organizations and the media.

VOLUME III: Smoke Detector Technology
A detailed description of how smoke detectors work, including comparisons of ionization and photoelectric detectors.

***VOLUME IV: Smoke Detectors and Legislation**
An in-depth review of the current status of state and local smoke detector legislation.

VOLUME V: Smoke Detector Training
A suggested curriculum for training members of the fire prevention community to present smoke detector education to the public.

*Contained in this Manual

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SMOKE DETECTORS AND THE LAW

The need for effective smoke detector legislation is rapidly gaining recognition around the country. Citizens and their elected representatives have become increasingly aware that a strong smoke detector law offers the potential of significant reduction in fire-caused human life and property loss.

To date that awareness has resulted in the adoption by 18 states of mandatory statewide residential smoke detector legislation. An additional five states have passed legislation that is not necessarily binding on their citizens and legislatures in at least 10 states are currently considering a smoke detector law. Numerous local jurisdictions across the country, from the City of San Rafael, California to Montgomery County, Maryland have adopted strong smoke detector ordinances.

While activity has increased in recent years, there appears to be no organized national or interstate effort toward smoke detector legislation. Impetus for the passage of smoke detector legislation has come from within the states and local jurisdictions, from people concerned about fire safety.

The current situation reveals 27 states, the District of Columbia and thousands of municipalities without the protection of a smoke detector law. The potential for organizing and drafting new smoke detector laws is clear and apparent.

A RANGE OF VARIABLES

For any community considering a smoke detector law or ordinance, smoke detector legislation has a wide range of variables representing decision points. These decision points can be expressed by the following questions:

1. Which residential occupancy sub-classes will be affected?
2. What are the time factors for compliance?
3. How will the law be enforced?
4. Who will enforce the law?
5. What type of detectors would be acceptable?
6. Where and how many detectors shall be installed?

1. WHICH RESIDENTIAL OCCUPANCY SUB-CLASSES WILL BE AFFECTED?

The 1976 Edition of the National Fire Protection Association (NFPA) Life Safety Code (Section 11-1.3.1) lists the following sub-classes of residential occupancies:

1. Hotel, motel, inn, club, or other named occupancy with greater than fifteen (15) sleeping accommodations for hire.

2. Apartment house, tenement, garden apartment, or other named occupancy with three (3) or more living units with independent cooking and bathroom facilities.

3. Dormitories, fraternity houses, military barracks, ski lodges, or other named occupancies providing group sleeping accommodations for persons not members of the same family group in one room or in a series of closely associated rooms under joint occupancy and single management, with or without meals but without individual cooking facilities.

4. Lodging, rooming, or guest houses or other named occupancies where separate sleeping accommodations for a total of fifteen (15) or less persons are provided on a transient or permanent basis, with or without meals, but without separate cooking facilities for individual occupants.

5. One-and two-family dwellings or other named occupancy where a living unit is occupied by members of a single family, with rooms rented to outsiders, if any, not accommodating more than three (3) persons.

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Each jurisdiction is free, of course, to alter these definitions.

There are additional possibilities such as mobile and manufactured homes. One- and two-family dwellings with any number of boarders may be differentiated from one- and two-family dwellings with no boarders at all. The *Rhode Island* law only applies to one-, two- and three-family dwellings. While the *Connecticut* law does not apply to single family dwellings, the ordinance adopted by the City of *Mountain View, California* defines a multi-family residential occupancy (apartment) as having four (4) or more living units. The City of *San Carlos, California* and *Minneapolis, Minnesota* differentiate between owner occupied and non-owner occupied dwellings. The *Chicago, Illinois* ordinance bases jurisdiction upon a combination of height, construction type, and the number of living units. The State of *Alaska* refers only to "all living units."

Within the limits of their authority, the legislative body is free to incorporate all or any possible combinations of occupancy classes into their law.

Summary

DECISION POINT	OPTIONS
Occupancies affected	mobile and manufactured dwellings
	multi-family dwellings
	one-and two-family dwellings
	hotel, motel, rooming or boarding houses
	all living units
	any combination of the above

2. WHAT ARE THE TIME FACTORS FOR COMPLIANCE?

THIS QUESTION HAS TWO PARTS:

a. The point in its existence when a building is required to comply with the law

b. The effective date of the law

Part a. can be addressed by the traditional grouping of buildings into two classes: *new construction* and *existing construction.*

For *new construction,* critical points could include: Final plan approval, date of issuance of building permit, completion of construction. For example, the *Maryland* law excludes residential buildings "constructed or under construction prior to July 1, 1975," while Section 1218.211 of the *Massachusetts* law governs "Every building, structure or portion thereof for which a permit was issued after January

1, 1975." The *Alaska* law is written in general terms regulating units "built, manufactured, or sold in the state" and provides an effective date of January 1, 1976.

For *existing* residential occupancies, the scope of the law can be as broad or narrow as desired. The law could regulate *all* existing residential buildings, or it may require compliance only at selected events, e.g., change of tenancy; change of ownership; upon repairs, additions or alterations exceeding a certain dollar amount or percentage of total valuation.

For example, the phrase "all living units . . . sold in the state" in the *Alaska* law has been interpreted to include the sale of existing residential buildings. Under *Maryland* law, only those existing hotels and multi-family buildings that are not in compliance with the existing requirements of the Life Safety Code are bound; other existing hotels and multi-family buildings need not comply. The *Minnesota* law regulates hotels, lodging houses, and apartments, as well as one- and two-family dwellings that are either remodeled or rented.

LOCAL LEGISLATION

On the local level, the *Mountain View, California* ordinance governs all existing one- and two-family and multi-family buildings that are two (2) or more stories in height. In *San Carlos, California,* all existing residential buildings other than single family residences are required to comply; no single family dwelling can be sold, rented, or structural change or repairs in excess of one thousand dollars ($1000.00) be made unless and until the structure is brought into compliance. The City of *San Rafael* ordinance is quite similar.

The *Montgomery County, Maryland* code represents the upper boundary of legislation pertaining to existing residential occupancies. All existing dwelling units from single family dwellings to hotels and motels must be equipped with detectors by July 1, 1978. The *Minneapolis, Minnesota* ordinance is equally broad, although existing hotels and motels of fire-resistive or non-combustible construction are exempted from the law. An ordinance adopted in *Prince George's County, Maryland* will require all existing buildings with three (3) or more dwelling units to be provided with detectors; the requirements for existing hotels and motels parallel the State law (Article 38A, Section 12A(b) - See above).

As a final example, the *Chicago, Illinois* ordinance requires detectors to be installed in the following existing residential buildings: 1. buildings of other than fire-resistive construction, three (3) stories in height, with six (6) or more living units and 2. buildings of other than fire resistive construction four (4) or more stories in height with any number of living units.

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THE EFFECTIVE DATE OF THE LAW

The effective date is defined here as the date on which a building must be in compliance with the requirements of the law. Stated differently, the effective date is the first day that a citation for non-compliance could be enforced.

The time period between enactment of the detector law and the effective date of the bill has varied from a low of six (6) months in *Alaska* to over six (6) years in *Minneapolis, Minnesota.* (Note: the 1982 effective date in Minneapolis is applicable only to existing construction.)

The lead time required will normally be greater for existing than for new construction due to the greater difficulty and expense involved. The time allowed to bring existing structures into compliance should be based upon the types of occupancy classes affected, the total number of units to be installed, requirements for installation (e.g., do they have to be direct-wired or battery powered), financial hardship, etc.

For new construction, the primary consideration is allowing sufficient time to permit the incorporation of the new requirements into the building plans.

Summary

DECISION POINT	OPTIONS
Time for Compliance	all new occupancies
	all occupancies changing tenants
	all occupancies sold (title change)
	all occupancies within 1, 3 or 5 years from effective date
	any occupancy with a repair or remodeling valued in excess of $ (X) amount,
	any combination of the above

3. HOW WILL THE LAW BE ENFORCED?

A number of enforcement mechanisms can be employed. The method or methods selected will depend upon available personnel, the class of occupancies affected, and the particular features of the detector law.

For example, a bill introduced in the *Maryland* legislature would have required that a detector be installed upon the sale of an existing dwelling. The Recorder of Deeds would not be permitted to accept or process the transfer of the deed unless an affidavit was attached stating that the requirements of the law had been satisfied. Failure to comply, in the opinion of the sponsor, would be sufficient grounds to void the entire contract of sale. The *Montgomery County, Maryland* ordinance requires that the owner or lessor certify that the necessary detectors are present and operational, but failure to comply would not be grounds for nullification of the contract.

In *Farmers Branch, Texas,* a Certificate of Occupancy must be obtained upon a change of ownership or occupancy. The Certificate would not be issued until the requirements of the law had been met. A civil fine ($200.00 per day) is provided for violations. The assessment of fines is a common means of enforcement.

However, it seems that without support and cooperation of the prosecutors and the courts any attempt to enforce the law would be ineffective.

Another possible enforcement method is plans review upon application for a building permit. Also, since many jurisdictions require annual licensing inspections for multiple family dwellings and other commercial residential buildings, a check for compliance would be made at that time.

Summary

DECISION POINT	OPTIONS
Enforcement Methods	plans review
	licensing inspections
	permit to occupy
	fine for noncompliance
	required for real estate title change
	others specific to local areas
	any combination of the above

4. WHO WILL ENFORCE THE LAW?

A range of government officials, agencies, or departments could assume enforcement responsibility. The building department, the fire department and the fire prevention bureau, the fire marshal, and the health, housing or safety departments are some of the more obvious possibilities.

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The allocation of the enforcement responsibility should be based upon consideration of: the particular requirements of the law or ordinance, existing enforcement practices, and the availability of enforcement personnel. In many instances the answer will be obvious.

For example, if only the Building Department conducts plans review and site inspection for new construction, it may be appropriate for that office to check for detectors. If the Fire Department or Fire Prevention Bureau already inspects existing apartments, it would seem logical to charge the Fire Department with enforcement responsibility; a similar argument could be made for the health, housing, or safety office. Normally, the inspection personnel should be given the authority to issue a citation for discovered violations.

A state law may charge the State Fire Marshal to specify acceptable devices and installation practices, although actual inspection and enforcement authority may be delegated from the state to local levels.

Finally, the need for technical expertise and the desire to avoid unnecessary paper work, time delays, and increased costs for all parties involved, are factors that warrant careful consideration.

Summary

DECISION POINT	OPTIONS
Enforcement Authority	building permits authority
	fire department
	fire prevention bureau
	health and safety department
	fire marshal
	others specific to local area

5. WHAT TYPE OF DETECTORS WOULD BE ACCEPTABLE?

6. WHERE AND HOW MANY DETECTORS SHALL BE INSTALLED?

These questions are presented together because they are primarily technical in nature. As such, they are better answered by other volumes in the series.

However, various legislative acts include some standard approaches. These vary from a simple charge to the state fire marshal in the *Alaska* statutue to a detailed set of specifications in the *Massachusetts* law. Other statutes and ordinances fall anywhere in between.

Some laws call for a list of approved devices with no specific criteria outlined, while others require conformance with a specific standard, e.g., UL 217 or NFPA 74. Some require that devices be approved by a major testing laboratory.

The law may specify acceptable types of power supply, i.e., AC hardwire, AC with cord and restraining plug, or DC battery-powered.

Other ordinances require additional sophisticated features such as auxiliary power supplies, interconnection of detectors, annunciator panels, central stations, etc., though these are primarily limited to high-rise apartment or commercial residential structures. Finally, some laws will regulate the sellers and installers of the devices as well.

Summary

DECISION POINT	OPTIONS
Type and Location of Detector	the detector must be sensitive to products of combustion, except that detectors sensitive to heat only are not acceptable
	approved and listed by major testing laboratories
	UL 217 specifications for detector performance
	AC and/or DC powered
	on ceiling or on wall 6-12" from ceiling
	in corridor outside each separate sleeping area
	multi-level dwellings (various locations - one per level)
	distance from kitchen or fireplace
	(For additional details, see the Smoke Detector Technology Manual or NFPA No. 74)

One final point for consideration is deciding who will be responsible for maintaining the detector. The landlord or the tenant? The bank holding the mortgage or the occupier of the dwelling? If the landlord is assigned legal responsibility, does this require weekly, monthly, or yearly testing of the detectors? If testing is required, is there a right of entry to the dwelling or the dwelling unit? What legal liabilities are being created should the detector malfunction? These are very difficult questions that can be answered by comprehensive legislation.

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ANALYSIS OF STATE LEGISLATION

The analysis in this section is based upon the data collected in the "State by State Summary" that begins on page . While it is possible to group the various 15 state actions into broad categories, the most fitting description of the status of smoke/fire detector legislation on a national level is a patchwork quilt.

Words or phrases used in this section should be given the meanings described below. These definitions are consistent with the "State by State Summary."

"Smoke/fire" detection or detector means that either a photoelectric or ionization type detector will generally be required to meet the requirements of the law.

"New" construction also includes new additions to existing buildings and buildings undergoing major alteration as defined by the particular law or code.

"Residential" housing or construction includes one- and two-family dwellings and apartments. Commercial, residential occupancies such as hotels, motels, guest, rooming, or boarding houses are not within the scope of the definition.

STATEWIDE LEGISLATION

Eighteen states have mandatory statewide legislation requiring smoke/fire detectors in new, residential construction. These states are: Alaska, California, Connecticut, Idaho, Indiana, Maryland, Massachusetts, Michigan, Montana, New Jersey, North Carolina, Ohio, Oregon, Rhode Island, Utah, Virginia, Washington, and Wyoming. However, the Connecticut law does not govern single family dwellings. The New Jersey law only regulates one- and two-family dwellings. The Rhode Island law extends only to one-, two-, and three-family dwellings. The Ohio Building Code applies only to structures with four or more units while the Ohio Fire Code extends jurisdiction to buildings with two or more dwelling units.

A second category of state activity is the passage of legislation that is not automatically binding upon the citizens of that state. Kentucky has adopted the entire set of NFPA Fire Codes and the One- and Two-Family Dwelling Code as a recommended guide. The jurisdiction of the Colorado law extends only to unincorporated regions of the state and incorporated areas that have not adopted any building code. The state building codes in New York, Minnesota, and Nevada must be adopted by the local government for the provisions to become mandatory. It appears, however, that a substantial portion of the populated areas in New York and Minnesota are bound by the detector law. A recent

Minnesota state law, however, does require all existing hotels, lodging houses, apartments, and certain one- and two-family dwellings to be equipped with detectors.

The final grouping contains those states that have no major statewide smoke/fire detector legislation. Twenty-seven states and the District of Columbia comprise this group. These jurisdictions, however, are not totally silent. Legislation is pending or anticipated in at least ten of these states. The administrative process to adopt the 1976 Edition of the SBCC Standard Building Code is underway in Alabama. The Pennsylvania Industrialized Housing Division located within the Department of Community Affairs regulates manufactured dwellings and requires smoke/fire detectors. Two of the four counties in the State of Hawaii enforce the 1973 Edition of the Uniform Building Code. Kentucky and Illinois require partial detector protection systems in certain apartments and commercial, transient, residential occupancies respectively. Also, many counties and local governments have adopted their own ordinances.

THE ROLE OF MODEL CODES

The model building codes have had a significant impact upon the detector legislation adopted by the various states.

Nine states (California, Colorado, Idaho, Indiana, Minnesota, Montana, Nevada, Utah, and Washington) used all or part of the 1973 Edition of the ICBO Uniform Building Code; one state (Wyoming) enforces the 1976 Edition of the Uniform Building Code. Several of the states are reviewing the 1976 Edition for possible adoption. As noted below in the section on Model Codes, the 1976 Edition of the Uniform Building Code requires detectors to be installed in sleeping rooms of hotels, motels, etc. It is not known whether this additional provision will be deleted should the 1976 Edition be adopted.

Three states (Michigan, New Jersey, and Virginia) rely upon the 1975 Edition of the BOCA Basic Building Code. The Pennsylvania Industrialized Housing Division also uses this code.

Several South Carolina State agencies use the 1973 Edition of the SBCC Standard Building Code. As noted above, the State of Alabama is in the process of adopting the 1976 Edition of the Standard Building Code.

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As noted throughout the Summary, many of the county and local governments have drawn heavily upon the model codes as the basis for local regulations. For example, the State of Connecticut requires Level Four (4) Protection as defined in the 1974 Edition of NFPA No. 74, *Household Fire Warning Equipment*.

MINIMUM/MAXIMUM CODES

Six states have adopted their building codes as "minimum/maximum" codes or not subject to local amendment. These states are Michigan, Minnesota, New Jersey, New York, Oregon, and Virginia. Local jurisdictions are apparently free to regulate those structures not subject to the building code. For example, Chesterfield County, Virginia, has adopted regulations requiring detectors in existing multi-family dwellings (three or more units).

Only three states were found to have regulations that apply to existing structures. Existing hotels and apartments with ten or more units not in compliance with the Life Safety Code would be required to comply with the Maryland detector law. Alaska law regulates the sale of existing "living units." The Minnesota law governs existing hotels, lodging houses, and apartments, as well as one- and two-family dwellings that are remodeled or sold.

To summarize, smoke/fire detectors are required in new, residential construction in twenty states (eighteen states with mandatory legislation, plus Minnesota and New York). Legislation is pending in many states that currently have no detector regulations and local jurisdictions have often adopted local regulations. Several of the states enforcing the 1973 Edition of the Uniform Building Code are studying the 1976 version. This newer edition would require detectors in hotel/motel and other transient residential occupancies. Six states have adopted "minimum/maximum" codes, and only three states regulate existing structures under their detector laws.

STATE BY STATE SUMMARY

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During the preparation of this volume, many state legislatures were considering legislation pertaining to smoke/fire detectors. The bills were many and varied; some addressed the sellers and installers of detector equipment while others mandated detector installation. Any final state action taken will not be reflected in the Summary.

To keep the language consistent throughout the Summary, several assumptions or presumptions were made.

For example, unless otherwise noted, the law, ordinance, or any other form of regulation should be considered as a mandatory provision. Additionally, the presumption is that the regulation applies state, county, or city wide.

The phrase "residential housing" or "residential construction" means one- and two-family dwellings (detached, semi-detached, duplexes, etc.) and multi-family dwellings (apartments, condominiums, etc.) The phrase should *not* be taken to include hotels, motels, guest, boarding or rooming houses, or any other commercial, residential occupancy for transients unless otherwise noted. Information pertaining to requirements for these transient occupancies is not complete; thus, a failure to reference any regulations should not be taken to mean that no regulations exist.

The word "new" should also be taken to include those existing structures that are required to comply with the requirements of new construction. Generally, these include: (1) new additions of sleeping areas and (2) major renovations of the existing structure. The definition of "major renovation" may not be consistent and should be checked locally.

All references to State or local regulations governing new mobile home construction have been omitted from the Summary. Regulations applicable to mobile homes are discussed at length in a separate section of this manual.

The expression "smoke/fire" detector or detection should be presumed to mean that either a photoelectric or ionization type detector would be required under the law. While some legislative acts specify the types of detectors that would be acceptable, many other acts give power of approval of detection devices to the Fire Marshal or other specified public official or agency. There is no way to predict these decisions and the facts of any given specific situation may call for a specialized installation.

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Similiarly, while some legislative acts specify how the detection devices are to be located and/or installed, other acts are not specific and simply charge an appropriate individual or agency to promulgate appropriate regulations. Generally, the administrative regulations adopted have not been noted. The subject matter of these regulations is of a technical nature and is dealt with in detail in other Volumes. It can be noted, though, that a number of states are enforcing the requirements of NFPA No. 74, *Standard for Household Fire Warning Equipment.*

ALABAMA

Alabama uses the 1976 Edition of the NFPA 101 Life Safety Code for child day-care centers. The administrative process for the adoption of the 1976 Edition of the Standard Building Code as a mandatory statewide regulation has been initiated.

ALASKA

The State of Alaska passed legislation, effective January 1, 1976, which requires that "smoke detection devices" shall be installed in all living units built, manufactured, or sold in the State. The sale of existing living units is governed by this legislation. The smoke detection devices must be of a type and placement approved by the State Fire Marshal.

ARIZONA

The State of Arizona has no statewide smoke/fire detector legislation applicable to residential housing.

The community of Payson requires smoke/fire detection in all new residential construction. Response from the City of Glendale indicates that Glendale and almost all of the cities and counties in that area have adopted the Uniform Building Code, which includes Section 1413 governing one and two family dwellings. The City of Phoenix does not require smoke/fire detectors.

ARKANSAS

No smoke/fire legislation, State or local, applicable to residential housing was located.

CALIFORNIA

Under a mandatory State Housing Law, all new dwelling units constructed after January 1, 1974, are required to have smoke/fire detection devices. The law references the Uniform Building Code and governs one- and two-family dwellings as well as apartments.

Local jurisdictions have established much more comprehensive smoke/fire detection ordinances, e.g., San Carlos, San Rafael, and Mountain View, California.

COLORADO

The State of Colorado has adopted the 1973 Edition of the Uniform Building Code. However, the code is only enforceable in unincorporated areas of the State and in those incorporated localities that have not adopted a building code which, reportedly, are few in number. The Colorado Division of Housing has enforcement responsibility.

The Community of Aurora enforces the 1976 Edition of the Uniform Building Code requiring smoke/fire detection devices in new residential (as well as hotel/motel) construction. The building code of the city of Denver requires smoke/fire detectors in new residential construction.

CONNECTICUT

Under recent State legislation, Level Four protection as defined in the "Standard for the Installation, Maintenance, and Use of Household Fire Warning Equipment," NFPA 74-1974, must be provided in all new construction of residential structures designed for two or more families which require a building permit. This mandatory enactment became effective October 1, 1976.

Additional legislation to extend jurisdiction over single family dwellings is pending.

DELAWARE

The State of Delaware enforces the Life Safety Code (NFPA 101) for child care centers. Legislation requiring smoke/fire detection in all new residential housing (e.g., one- and two-family dwellings, apartments, hotels/motels) is pending.

New Castle and Kent Counties, as well as several cities and towns, have adopted and enforce the 1975 Edition of the Basic Building Code.

DISTRICT OF COLUMBIA

No smoke/fire detector legislation applicable to residential housing was located.

Legislation has been introduced in the City Council. Smoke/fire detection would be required in all new residential construction and all existing buildings subsequently renovated. Existing apartment buildings would be required to install smoke/fire detectors by July 1, 1978. Within thirty days of the signing by the Mayor of any legislation, the United States Congress may veto or amend said legislation. Otherwise, the law becomes effective at the end of the thirty day period.

FLORIDA

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

GEORGIA

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

Legislation governing new construction of duplexes and apartments is pending.

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HAWAII

The State Fire Marshal of the State of Hawaii may adopt applicable fire codes (State Code, Section 132-1 and 132-17).

Honolulu and Kauai Counties have adopted and enforce the 1973 Edition of the Uniform Building Code. The 1976 Edition of the Uniform Building Code is presently under study by all four of the Hawaiian counties.

IDAHO

Pursuant to the Uniform Building Code Advisory Act, the State of Idaho enforces the 1973 Edition of the Uniform Building Code. The installation of smoke/fire detection devices is mandated in new residential construction.

The Life Safety Code (NFPA 101) governs those areas not addressed by the Uniform Building Code.

ILLINOIS

The Illinois Rules and Regulations for Fire Prevention and Safety require smoke/fire detection devices in stairwells and hazardous areas of certain transient residential occupancies (e.g., hotels/motels, rooming or lodging houses).

The city of Chicago requires detectors in new residential construction. Existing structures, either three or more stories in height with six or more dwelling units or four or more stories in height with any number of dwelling units, of other than fire-resistive construction must also be equipped with detectors.

INDIANA

The State of Indiana has adopted the 1973 Edition of the Uniform Building Code. Any new home or apartment complex must be equipped with smoke/fire detectors.

IOWA

No smoke/fire detector legislation, State or local, applicable to private residential housing was located.

KANSAS

No smoke/fire detector legislation, State or local, applicable to residential housing was located. Legislation requiring partial detector protection (e.g., stairwells, hazardous areas) in apartments is under consideration.

KENTUCKY

The State of Kentucky has adopted the NFPA Fire Codes as a recommended, but not mandatory, guide. All classes of new residential construction with twelve or more units are required to comply with the 1976 Edition of the Life Safety Code. The State has also adopted the One- and Two-Family Dwelling Code, but relies upon local enforcement.

LOUISIANA

No smoke/fire detector legislation, State or local, applicable to residential housing was located. The State of Louisiana enforces the 1973 Edition of the Life Safety Code (NFPA 101) and requires a manual alarm system in certain new apartment construction (Section 11-3331).

Additional legislation is anticipated.

MAINE

No smoke/fire detector legislation, State or local, applicable to residential housing was located. The State of Maine enforces the 1973 Edition of the Life Safety Code (NFPA 101) for specific occupancies (e.g., day-care facilities, institutional occupancies).

MARYLAND

The State of Maryland has enacted a law (Article 38A, Section 12A) which requires that each sleeping area within all occupancies classified residential shall be provided with a minimum of one approved smoke/fire detector sensing visible or invisible particles of combustion and installed in a manner and location approved by the Fire Prevention Commission. In general, this does not apply to residential buildings constructed, or under construction prior to July 1, 1975. Existing hotels/motels and multi-family buildings with ten units or more that are not in compliance with the existing requirements of the Life Safety Code must install detection devices in each dwelling unit by July 1, 1978.

On September 14, 1976, the Montgomery County Council passed an ordinance requiring the installation of an approved smoke/fire detector in all residential structures. This is the only legislative act located which requires private citizens to install smoke/fire detectors in all homes. Prince George's County enacted an ordinance similar to Montgomery County's. However, the Prince George's County ordinance only regulates structures with three or more dwelling units.

MASSACHUSETTS

The Massachusetts State Building Code requires that residential housing, including manufactured homes, shall contain smoke/fire detectors. The legislation specifies the minimum number of detectors as well as requirements for approved type detectors, their location, and mounting. The legislation applies only to buildings or structures for which permits were issued on or after January 1, 1975.

The City of Quincy, Massachusetts requires a "permanently installed . . . approved fire detection and alarm system" in all new residential construction.

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MICHIGAN

The State of Michigan enforces the 1975 Edition of the Basic Building Code and mandates smoke/fire detectors in all new residential construction. Local governments have the option of adopting the Uniform Building Code or Standard Building Code in lieu of the Basic Building Code. State law also requires that a smoke detector and fire extinguisher must be provided within ninety days after the sale of an existing mobile home.

MINNESOTA

The State Building Code of the State of Minnesota, based upon the 1973 Edition of the Uniform Building Code, requires smoke/fire detectors to be installed in all new residential construction. While the State Building Code is not automatically a mandatory statewide code, any locality within the State that wishes to adopt a building code must adopt the State Building Code without local amendments. The major percentage of all populated areas are reportedly enforcing the State Building Code.

Under a recent state law that also amended the State Building Code, existing apartments, hotels, lodging houses, and one- and two-family dwellings rented or remodeled after January 1, 1980, must be provided with detectors. This law supercedes all local regulations or ordinances.

The city of Minneapolis adopted an ordinace that requires all existing residential structures, except hotels and motels of fire-resistive or non-combustible construction, to be equipped with detectors. Battery operated detectors are only permitted in owner-occupied dwellings. The effective date for existing structures is January 1, 1982. It is expected that the provisions of the Minneapolis ordinance that conflict with the state law noted above will become null and void.

The White Bear Lake (Minnesota) Fire Department, in a communication to the public via the local press, has made a good case for the use of detectors as well as informing the public of the requirements of the law.

MISSISSIPPI

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

MISSOURI

The State of Missouri is in the planning stages of a proposed statewide fire prevention code. However, as of this date, no smoke/fire detector legislation, State or local, has been located.

MONTANA

The State of Montana enforces the 1973 Edition of the Uniform Building Code statewide and requires smoke/fire detectors in all new residential construction.

NEBRASKA

The State of Nebraska has no smoke/fire detector legislation applicable to residential construction.

The city code of Lincoln, Nebraska requires the installation of smoke/fire detectors in new residential construction.

NEVADA

The State of Nevada uses the 1973 Edition of the Uniform Building Code; however, each local jurisdiction must adopt the Code for the smoke/fire detector provisions to apply.

NEW HAMPSHIRE

A bill passed by the Legislature in June 1977, was vetoed by the Governor. Only new residential structures approximately 70 feet or more in height are required to have detection devices installed; plans for these buildings must be approved by the Fire Marshal's Office, which requires the installation of detectors.

NEW JERSEY

Effective January 1, 1977, smoke/fire detection is mandated for all newly constructed one and two family dwellings. The State Building Code, fashioned after the 1975 Edition of the Basic Building Code, is not subject to local amendment.

NEW MEXICO

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

NEW YORK

The building code of the State of New York requires smoke/fire detectors in all new residential housing. However, each local jurisdiction must adopt the state code for the provisions to apply. The building code, if adopted, is not subject to local amendment; only the Housing Code Bureau has authority to amend the State Building Code. To date, 659 municipalities have adopted the state code which, reportedly, encompasses the major percentage of the state's population. New York City, Rochester, Albany, and Buffalo have adopted their own codes.

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NORTH CAROLINA

The State of North Carolina has a mandatory statewide building code and requires smoke/fire detectors in all new residential construction.

NORTH DAKOTA

No statewide smoke/fire detector legislation applicable to residential housing was located. However, some legislation is pending.

The communities of Fargo, Bismarck, Grand Forks, and Wahpeton enforce the 1973 Edition of the Uniform Building Code; the 1975 Edition of the Basic Building Code has been adopted in Dickinson and Minot. Devils Lake has adopted the 1976 Edition of the Uniform Building Code with a local amendment requiring an additional detector in the basement or cellar of single family homes near the central heating plant. This amendment was in response to a local problem. The codes in the above cities pertain only to new construction.

OHIO

The Ohio State Building Code, a mandatory statewide code, requires smoke/fire detection in all new non-transient, non-sprinklered residential construction having four or more dwelling units. If the structure is a high rise building (greater than 75 feet in height as defined by Ohio law), then an "Automatic Smoke Alarm System" is required. This system must be supervised, notify a central station, auxiliary, or other like alarm service, have an annunciator panel, and provide a local alarm to the floor of activation and the floor above. A bill is presently pending with the legislature that would require existing high rise apartments or condominums to be equipped with an "Automatic Smoke Alarm System."

Under the Ohio Fire Code (1977 Edition), smoke/fire detectors are required in new residential construction with two or more dwelling units. While this is mandatory state law with applicable civil penalties, enforcement is dependent upon local efforts.

OKLAHOMA

No statewide smoke/fire detector legislation applicable to residential housing was located. However, legislation currently pending would mandate smoke/fire detectors in all new residential construction effective June 1, 1978.

The City of Tulsa, Oklahoma requires smoke/fire detectors in all new residential construction.

OREGON

The building code of the State of Oregon, a mandatory minimum/maximum code, requires smoke/fire detectors in all new residential housing.

PENNSYLVANIA

No statewide smoke/fire detector legislation applicable to on-site construction of residential housing was located. The Industrialized Housing Division within the Department of Community Affairs regulates the construction and sale of manufactured homes. These manufactured homes must comply with the 1975 Edition of the Basic Building Code and would require smoke/fire detection. Mobile homes are not considered as manufactured homes under the Industrialized Housing Act.

The City of Greensburg, Pennsylvania has adopted the 1975 Edition of the Basic Building Code and requires smoke/fire detectors in new residential construction.

RHODE ISLAND

Mandatory, statewide legislation requires smoke/fire detectors in all new or modified one-, two-, and three-family dwellings (Section 23-28.34).

SOUTH CAROLINA

The State of South Carolina does not have statewide smoke/fire detector legislation. Several municipalities, counties, and state agencies have adopted the Standard Building Code.

SOUTH DAKOTA

The State of South Dakota has no statewide smoke/fire detector legislation applicable to residential housing. Legislation addressing this area was recently defeated in the legislature.

Smoke/fire detector legislation is under consideration in Sioux Falls, South Dakota.

TENNESSEE

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

TEXAS

The State of Texas does not have statewide smoke/fire detector legislation. Many localities in Texas have adopted building codes which require smoke/fire detectors in new residential housing. The cities of Dallas and Richardson use parts of the Uniform Building Code, Sections 1310 and 1413, which require smoke/fire detectors in new residential construction.

Farmers Branch, Texas, a small suburb of Dallas, adopted an ordinance which not only requires installation of smoke/fire detectors in newly constructed residences, but also in existing homes upon a change of occupancy or ownership. Whenever a change in residence or ownership occurs in single-family housing, a certificate of occupancy must be obtained by the tenants. To secure this certificate, the new resident is required to install an approved smoke/fire detector within thirty (30) days. A system of fines is provided as a means of enforcement of this ordinance.

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UTAH

Recent legislation has made the 1973 Edition of the Uniform Building Code the mandatory, statewide, minimum building code requiring smoke/fire detectors in new residential construction. The 1976 Edition of the Uniform Building Code is presently under study.

VERMONT

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

VIRGINIA

The State of Virginia has adopted the 1975 Edition of the Basic Building Code as a mandatory, statewide minimum/maximum code for new construction. Smoke/fire detectors are required in new residential construction.

The Chesterfield County Board of Supervisors adopted an amendment to the County Fire Prevention Code which gives the Fire Department the authority to survey and specify smoke/fire detectors for existing multi-family dwellings (three or more dwelling units). The Fire Marshal is currently working to implement this ordinance.

WASHINGTON

The State of Washington incorporates Sections 1310 and 1413 of the 1973 Edition of the Uniform Building Code into the State Building Code (Section RCW 19.27). Smoke/fire detection is required in all new residential construction.

WEST VIRGINIA

No smoke/fire detector legislation, State or local, applicable to residential housing was located.

WISCONSIN

The State of Wisconsin has no statewide legislation applicable to residential housing.

The Village Board of the Village of Bayside in Milwaukee and Ozaukee Counties passed an ordinance regulating emergency alarm systems and requiring all new structures within the village to install smoke/fire detection systems when constructed. Existing structures, with the exception of one and two family dwellings, were required to install such systems within ninety days. The legislation includes an incentive provision allowing homeowners to avail themselves of financing the installation of alarm systems through a special assessment program.

WYOMING

The State of Wyoming has adopted the 1976 Edition of the Uniform Building Code as a mandatory, statewide building code. Smoke/fire detection is required in all new residential construction as well as guest rooms in hotels and motels. This law became effective on March 4, 1977.

SAMPLE STATE LEGISLATIVE ACTS

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STATE OF ALASKA

AN ACT
Relating to smoke detection devices; and providing for an effective date.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

- Section 1. AS 18.70 is amended by adding a new section to read:

  Sec.18.70.095. SMOKE DETECTION DEVICES. Smoke detection devices shall be installed in all living units built, manufactured or sold in the state. The devices shall be of a type and deployed in a manner approved by the state fire marshal.

- Sec. 2. This Act takes effect January 1, 1976.

STATE OF CONNECTICUT SECTION 29-40. FIRE SAFETY CODE SMOKE DETECTION CERTIFICATE OF OCCUPANCY.

(a) The state fire marshal shall adopt, promulgate and administer a fire safety code and at any time may amend the same. The regulations in said code shall provide for reasonable safety from fire, smoke and panic therefrom, in all buildings and areas adjacent thereto except in private dwellings occupied by one or two families and upon all premises except those used for manufacturing, and shall include provision for smoke detection systems in residential buildings designed to be occupied by two or more families, for which a building permit is issued on or after October 1, 1976, to provide Level Four Protection, as defined in the 1974 edition of Standard Number Seventy-four of the National Fire Protection Association. Said regulations shall require that smoke detectors which are installed in such residential buildings shall be capable of sensing visible and invisible smoke particles, that the manner and location of installing smoke detectors shall be approved by the local fire marshal, that such installation shall not exceed the standards under which said detectors were tested and approved and that such system, when activated, shall provide an alarm suitable to warn the occupants.

(b) No certificate of occupancy shall be issued for any residential building for which a building permit is issued on or after October 1, 1976, unless the local fire marshal has certified that said building is equipped with a smoke detection system complying with the fire safety code.

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STATE OF MARYLAND
12A. SMOKE DETECTION SYSTEMS.

(a) *Smoke detector required in sleeping area.*—Each sleeping area within all occupancies classified residential, as defined in Chapter 11 of the National Fire Protection Association Life Safety Code, 1973 Edition, shall be provided with a minimum of one approved smoke detector sensing visible or invisible particles of combusion installed in a manner and location approved by the Fire Prevention Commission. When activated, the detector shall provide an alarm suitable to warn the occupants.

(b) *Period allowed for compliance by hotels and multi-family buildings; inspection and enforcement.*—Each dwelling unit within existing hotels and multi-family buildings of ten units or more which cannot conform with the exiting requirements of the Life Safety Code shall be in compliance with this section within three years from the effective date of adoption. Inspection and enforcement of this provision shall be under the direction of the State Fire Marshal subject to the rules and regulations promulgated by the Fire Prevention Commission.

(c) *Lineal or square footage allowances.*—Approved smoke detecting devices shall be installed not to exceed the lineal or square footage allowances specified, based on the generally accepted test standards under which they were tested and approved.

(d) *Approval of systems; limitation on use.*—Smoke detection systems shall be approved for the particular system and shall only be used for detection and signaling in the event of fire.

(e) *Power source to be AC; circuit.*—Smoke detection systems shall operate on an AC primary source of electric power. Each detector shall be wired into the circuit serving the area in which it is located.

(f) *Operation on other than AC current.*—Smoke detection systems may operate on approved power supplies other than an AC primary source when approved by the Fire Prevention Commission, but only when it is clearly evident that reasonable safety is secured.

(g) *Compliance with fire prevention code regulations.*—Sale and installation of smoke detection systems shall be in accordance with State of Maryland Fire Prevention Code regulations.

(h) *Approval of sellers and installers.*—Approval shall be obtained from the State Fire Marshal by every individual, firm or corporation commercially selling, installing, or repairing smoke detection systems. Application for such approval shall be in the manner prescribed by the State Fire Marshal.

(i) *Sprinkler systems.*—An approved automatic fire sprinkler system may be installed in lieu of a smoke detection system when approved by the Fire Prevention Commission. This option shall not nullify any other requirements of the code nor be construed as exempting any occupancy from such requirements where clearly applicable under the text of the code.

(j) *Baltimore City.*—Notwithstanding any other provisions of this article, the provisions of this section shall apply in Baltimore City. In the city, the city fire department shall enforce these provisions and any appeals concerning these provisions shall be made to the city fire board. (1975, ch. 860,§ 1.)

Editor's note.—Section 2, ch. 860, Acts 1975, provides that "except for § 12A (b) of this act, the provisions of this act do not apply to any residential building including hotels, apartments, and other multi-family dwellings constructed, or under construction, prior to July 1, 1975."

Section 3 of ch. 860 provides that the act shall take effect July 1, 1975.

STATE OF MINNESOTA
A BILL FOR AN ACT

relating to public safety; requiring fire detection devices in certain residential housing; directing the commissioner of administration to amend the state building code; amending Minnesota Statutes 1976, Section 16.85, Subdivision 1; and Chapter 299F, by adding a section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 1976, Section 16.85, Subdivision 1, is amended to read:

16.85 GENERAL POWERS OF COMMISSIONER, STATE BUILDING CODE. Subdivision 1. Subject to the provisions of sections 16.83 to 16.867, the commissioner shall by rule establish a code of standards for the construction, reconstruction, alteration, and repair of state-owned buildings, governing matters of structural materials, design and construction, fire protection, health, sanitation, and safety. The commissioner may amend the code from time to time as provided in sections 16.83 to 16.867. The code and any amendment thereof shall conform insofar as practicable to model building codes generally accepted and in use throughout the United States. In the preparation of the code consideration shall be given to the existing state-wide specialty codes presently in use in the state of Minnesota. Such model codes with modifications as may be deemed necessary and state-wide specialty codes may be adopted by reference. The code so promulgated and any amendments thereof shall be based on the application of scientific principles, approved tests,

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and professional judgement; and to the extent that it is practical so to do the code shall be promulgated in terms of desired results instead of the means of achieving such results, avoiding wherever possible the incorporation of specifications or particular methods or materials. To that end, the code shall encourage the use of new methods and new materials.

The code shall require that all new dwellings, lodging houses, apartment houses, and hotels as defined in section 2 comply with the provisions of section 2.

Sec. 2 Minnesota Statutes 1976, Section 299F, is amended by adding a section to read:

299F.362 INSTALLATION OF SMOKE DETECTORS IN DWELLINGS, LODGING HOUSES, APARTMENT HOUSES, AND HOTELS. *Subdivision 1.* DEFINITIONS. *For the purposes of this section, the following definitions shall apply:*

(a) "Apartment house" is any building, or portion thereof, which is designed, built, rented, leased, let, or hired out to be occupied, or which is occupied as the home or residence of three or more families living independently of each other and doing their own cooking in the building, and shall include buildings containing three or more flats or apartments.

(b) "Dwelling" is any building constructed, remodeled, rented or offered for rent after January 1, 1980, or any portion thereof which is not an "apartment house", "lodging house" or a "hotel" and which contains one or two "dwelling units" which are, or are intended or designed to be, occupied for living purposes.

(c) "Dwelling units" is a single unit providing complete, independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking, and sanitation, or a single unit used by one or more persons for sleeping and sanitation pursuant to a work practice or a labor agreement.

(d) "Hotel" is any building or portion thereof containing six or more guest rooms intended or designed to be used, or which are used, rented, or hired out to be occupied, or which are occupied for sleeping purposes by guests.

(e) "Lodging house" is any building or portion thereof containing not more than five guest rooms which are used or are intended to be used for sleeping purposes by guests and where rent is paid in money, goods, labor, or otherwise.

Sub. 2. RULES, SMOKE DETECTOR LOCATION. The commissioner of public safety shall promulgate rules concerning the placement of smoke detectors in dwellings, apartment houses, hotels, and lodging houses. The rules shall take into account designs of the guest rooms or dwelling units.

Sub. 3. FIRE WARNING SYSTEMS: DWELLINGS. Every dwelling unit within a dwelling shall be provided with a smoke detector meeting the requirements of Underwriters Laboratories, Inc., or approved by the International Conference of Building Officials. The detector shall be mounted in accordance with the rules regarding smoke detector location promulgated under the provisions of subdivision 2. When actuated, the detector shall provide an alarm in the dwelling unit.

Sub. 4. FIRE WARNING SYSTEMS: APARTMENT HOUSES, LODGING HOUSES, AND HOTELS. Every dwelling unit within an apartment house and every guest room in a lodging house or hotel used for sleeping purposes shall be provided with a smoke detector conforming to the requirements of Underwriters Laboratories, Inc., or approved by the International Conference of Building Officials. In dwelling units, detectors shall be mounted in accordance with the rules regarding smoke detector location promulgated under the provisions of subdivision 2. When actuated, the detector shall provide an alarm in the dwelling unit or guest room.

Sub. 5. MAINTENANCE RESPONSIBILITIES. For all occupancies covered by this section where the occupant is not the owner of the dwelling unit or guest room, the owner is responsible for the maintenance of the smoke detector.

Sub. 6. PENALTY. Any person who violates any provisions of this section shall be subject to the same penalty incurred for violation of the fire safety code, as specified in section 299F.39, subdivision 4.

Sub. 7. This section prevents a local unit of government from adopting standards different from those provided in this section, except that, as to new construction, a local unit of government may require that the smoke detector be attached to a centralized electrical power source.

Sub. 8. EFFECTIVE DATE. This section is effective January 1, 1980, except subdivision 2 shall be effective August 1, 1977.

STATE OF NEW YORK AMENDMENTS TO STATE BUILDING CONSTRUCTION CODE APPLICABLE TO ONE-AND-TWO-FAMILY DWELLINGS

Promulgated December 16, 1975 and Effective April 1, 1976.

A 108-3 Definitions

Smoke-detecting alarm device, single-station. An assembly comprised of a photoelectric or ionization type of smoke detector, control equipment and audible alarm in one unit, which upon detection of smoke, activates the alarm.

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A 406 Single-Station Smoke-Detecting Alarm Device

At least one single-station smoke-detecting alarm device, installed in conformity with Section A 510, shall be provided *adjacent to sleeping spaces* on *each floor level* and shall be located *on or near the ceiling.*

A 510 Single-Station Smoke-Detecting Alarm Devices

a. Single-station smoke-detecting alarm devices shall conform to the requirements of Section A 501.

b. Such device shall be designed and installed so as to *avoid dead air space,* detect smoke and activate the alarm, to be reasonably free from false alarm and provide *visible indication* that the alarm is energized.

c. The alarm shall be *clearly audible in adjacent sleeping spaces* with intervening doors closed.

d. The device shall be *directly connected to the lighting circuit* of the dwelling unit *with no intervening wall switch.* Cord-connected installations *shall not be permitted.*

STATE OF NORTH CAROLINA

Section 1127—Automatic Smoke Detectors

(d) In one and two family dwellings and in every dwelling unit within an apartment house, condominium and or townhouse, an approved listed detector, sensing visible and invisible particles of combustion shall be provided and installed in accordance with the manufacturer's recommendation and listing. When actuated, the detector shall provide an audible alarm.

At least one listed detector shall be installed outside each sleeping area to warn occupants of the presence of any fire condition. Detectors shall have either a visible light to indicate operability or an audible trouble sign. Audible trouble signals shall be designed to operate at least every minute for seven consecutive days. The alarm signaling device shall emit not less than 85 decibels at 10 feet. Detectors shall be located on or near the ceiling and installed in accordance with the manufacturer's instructions. Detectors shall be electrically operated (non-plug-in) and the primary source of power for detectors installed in new structures shall be taken from the house electrical current.

The effective date shall be January 1, 1975. This shall be applicable to all units constructed after this date even though they are in the design stage between July 1, 1974 and January 1, 1975.

NORTH CAROLINA STATE BUILDING CODE

SECTION 200—Add new definition as follows:

LISTED: Equipment or materials included in a list published by a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

The means for identifying listed equipment may vary for each testing laboratory, inspection agency or other organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

NOTE: Test Standards for Automatic Smoke Detectors—All automatic smoke detectors shall be tested in accordance with the applicable requirements of "Standard for Smoke Detectors, Combustion Products Type for Fire Protective Signalling Systems. UL-167, April, 1974". The testing and listing must be by a nationally recognized testing laboratory as provided in the definition of "LISTED" in Section 200.

NOTE: REFER TO NORTH CAROLINA GENERAL STATUES 66-23 THROUGH 66-27 ENTITLED "ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT."

STATE OF RHODE ISLAND
23-28.34 "FIRE DETECTION SYSTEMS"

23-28.34-1

All buildings hereinafter constructed or converted for residential occupancy shall be equipped with a smoke detection system listed and/or approved by the Underwriters Laboratories, Inc., or the Factory Mutual, installed according to standards set forth below, except that such systems shall not be required in buildings or structures subject to the provisions of the general laws relative to the installation of automatic sprinkler systems and/or automatic fire warning systems connected thereto.

23-28.34-2 Minimum number of detectors.

a. A minimum of one (1) approved smoke detector shall be located in the highest habitable level and on each floor, level, or story below, including the basement or cellar.

b. For any floor, level, or story exceeding 1200 square feet in area, one (1) approved smoke detector shall be provided for each 1200 square feet or portion thereof.

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23-28.34-3 Locations of detectors.

a. Approved smoke detectors shall be located outside each separate sleeping area in accordance with the definition of "Separate sleeping area" as provided in NFPA-74 (1974 edition).

b. In basements or cellars not utilized as sleeping areas, smoke detectors shall be located within twenty-four inches (24") of the base of the stairways which are side enclosed.

c. In basements or cellars with an open stairway, smoke detectors shall be located at the top of the stairway.

d. All detectors shall be mounted on the ceiling.

23-28.34-4 Power supply and wiring methods.

a. For all detection systems, an AC primary source of electric power shall be taken from a dependable commercial light and power supply source. The wiring to each detector shall be taken from a branch circuit serving a habitable area with no more than two (2) required smoke detectors on the same branch circuit. The power source for the detectors shall be on the power side, ahead of any switches.

b. All required detectors shall be provided with a visible "Power On" indicator and shall be interconnected so that when one detector is actuated all detectors will sound and omit an audible signal to meet the requirements of NFPA-74 (1974 edition) section 2-2-3.

23-28.34-5 Enforcement.

The local fire authorities shall enforce the provisions of this chapter.

23-28.34-6 Homeowners responsible.

It shall be the responsibility of the home owner to maintain in operable condition, smoke detection systems, installed as required pursuant to this chapter.

23-28.34-7 Penalty.

Any owner of a building or structure who fails to comply with the provisions of this chapter shall be punished by a fine of not more than five hundred dollars ($500).

SAMPLE LOCAL LEGISLATIVE ACTS

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CITY OF MOUNTIAN VIEW, CALIFORNIA ORDINANCE NO. 21.72

AN ORDINANCE AMENDING SECTION 14.2 OF ARTICLE I OF CHAPTER 14 OF THE CODE OF THE CITY OF MOUNTAIN VIEW, AMENDING SECTIONS 13.40 AND 13.50 OF THE UNIFORM FIRE CODE, 1967 EDITION, AS PREVIOUSLY AMENDED AND ADOPTED BY ORDINANCE NO. 20.72, IN AND FOR THE CITY OF MOUNTAIN VIEW RELATING TO THE DATE OF COMPLIANCE FOR EXISTING STRUCTURES FOR FIRE ALARM AND DETECTION DEVICE AND AUTOMATIC SPRINKLER SYSTEM REQUIREMENTS FOR THE CITY OF MOUNTAIN VIEW

The City Council of the City of Mountain View does ordain as follows:

SECTION 1. That Section 14.2 of Article I of Chapter 14 of the Code of the City of Mountain View as previously amended by Ordinance No. 20.72, is hereby amended to read as follows:

SECTION 14.2 *Amendments; additions and deletions*
The Uniform Fire Code is amended and changed in the following respects:

(1) Article 1, Section 1.14 is amended by deleting it in its entirety and adding a new section to read as follows:

SEC. 1.14 *Authority.* The chief, members of the Fire Prevention Bureau and all members of the department charged with enforcement of this code shall have the powers of a police officer while performing their duties under this code.

(2) Article 1, Section 1.24 is amended by deleting it in its entirety; and adding a new section to read as follows:

Sec. 1.24 *Appeals.* Whenever the Chief of the Fire Department shall disapprove an applicant or refuse to grant a license or permit applied for, or when it is claimed that the provisions of the code do not apply, or that the true intent and meaning of the code have been misconstrued or wrongfully interpreted, the applicant may appeal from the decision of the Chief of the Fire Department to the city council within 30 days from the date of the decision.

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SECTION 13.40. FIRE ALARM SYSTEMS

a. (1) Every building constructed for single family and two family occupancy, two or more stories in height, shall have installed therein an approved fire detection, products of combustion system at the top of each stairway and exitway. The detector shall be sensitive to any of the products of combustion except that detectors sensitive to heat only are not acceptable. Alarm signaling devices shall be clearly audible in all bedrooms when all the intervening doors are closed. For the purpose of installation and maintenance only the applicable sections of NFPA No. 74, "Standard for the Installation, Maintenance and Use of a House Fire Warning System," shall be considered accepted engineering practices. Installation of said fire detection system must have prior approval of the Chief of the Fire Department of the City of Mountain View.

(2) Every building constructed for multi-family residential occupancies and two or more stories in height, shall have installed herein an approved supervised fire detection, products of combustion system at the top of each stairway and exitway. Said system must be connected to the fire alarm headquarters of the City of Mountain View, as outlined in "Rules and Regulations—Private Fire Alarm Connections," Resolution #7358 (11-14-66), and the installation of said system must have prior approval of the Chief of the Fire Department of the City of Mountain View.

(3) Every building constructed for nonresidential occupancies over five thousand square feet in area, but less than ten thousand square feet in area shall have installed therein an approved fire detection system in accordance with the Standards for said system as established by the National Fire Protection Association. Said system must be connected to the fire alarm headquarters of the City of Mountain View, as outlined in "Rules and Regulations—Private Fire Alarm Connections," Resolution #7358 (11-14-66), and the installation of said system must have prior approval of the Chief of the Fire Department of the City of Mountain View.

b. No signal system or intercommunicating system used for any purpose other than fire warning meets the requirements of this Article.

c. The use of any existing building nonconforming to the provisions of this section at the time of its enactment and to which the provisions of this section would otherwise apply if it were proposed for construction at the time of its enactment shall be terminated, or the building shall be made to conform to the provisions of this section, on or before July 1, 1980.

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Section 1307 (g)

Every existing building used for multiple family occupancy consisting of three or more units shall have installed in each unit therein an approved fire detection products of combustion system. The detectors shall be sensitive to any of the products of combustion except that detectors sensitive only to heat are not acceptable. Alarm signaling devices shall be clearly audible in all bedrooms when all intervening doors are closed. For the purpose of installation and maintenance only the applicable sections of NFPA No. 74, "Standard for the Installation, Maintenance, and Use of a House Fire Warning System," shall be considered accepted engineering practices. Installation of said fire detection system shall have prior approval of the Chief of the Fire Department of the City of San Carlos.

The use of any building nonconforming to the provisions of this section at the time of its enactment shall be terminated, or the building shall be made to conform to the provisions of this section on or before January 1, 1977.

Section 13.307 (g)

With the exception of single family residences, the use of any existing building nonconforming to the provisions of this section at the time of its enactment and to which the provisions of this section would otherwise apply if it were proposed for construction at the time of its enactment shall be terminated, or the building shall be made to conform to the provisions of this section on or before July 1, 1976.

And a new Section 13.307 (h) is created to read as follows:

Section 13.307 (h)

No single family residence shall be sold or rented, and no structural change or repair of a value in excess of $1,000.00 shall be made thereto, unless and until the residence meets the requirements of S 13.307 (c) (1).

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CITY OF SAN RAFAEL, CALIFORNIA

ORDINANCE NO. 1225
AN ORDINANCE OF THE CITY OF SAN RAFAEL AMENDING SECTION 4.03.030 ADOPTION OF UNIFORM FIRE CODE OF THE SAN RAFAEL MUNICIPAL CODE, AND AMENDING SECTION 4.03.030, ARTICLE 13, SECTION 13.307 OF THE UNIFORM FIRE CODE, 1971 EDITION, AS ADOPTED, RELATING TO HOUSEHOLD FIRE WARNING SYSTEMS, AND ADOPTING BY REFERENCE THE NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLETS THE CITY COUNCIL OF THE CITY OF SAN RAFAEL DO ORDAIN AS FOLLOWS:

DIVISION 1. Section 4.03.0303, Adoption of Uniform Fire Code of the San Rafael Municipal Code is hereby amended by adding "Pamphlet No. 74" of the National Fire Protection Association to subsection (a).
DIVISION 2. Section 4.08.090, Amendments Made to the Uniform Fire Code, Article 13, Section 13.307 of the Uniform Fire Code, 1971 Edition is hereby amended by adding thereto subparagraphs (i) which shall read as follows:

(i) No single family dwelling or multiple occupancy shall be sold and no structural change of repair of a value in excess of One Thousand Dollars ($1,000.00) shall be made thereto unless and until the structure has installed therein an approved fire detection product of combustion system, which has been approved by the Fire Marshal of the State of California. The detectors shall be sensitive to any of the products of combustion except that detectors sensitive only to heat are not acceptable. Alarm signaling devices shall be clearly audible in all bedrooms when all intervening doors are closed. For the purpose of installation and maintenance only, the applicable sections of National Fire Protection Association No. 74, "Standard for the Installation, Maintenance, and Use of a Household Fire Warning System" shall be considered accepted engineering practices.

DIVISION 3. If any section, subsection, sentence, clause or phrase of the Ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Ordinance. The Council hereby declares that it would have adopted the Ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that any one or more actions, subsections, sentences, clauses or phrases be declared invalid.

DIVISION 4. This ordinance shall be published once in full before its final passage to the Independent Journal, a newspaper of general circulation, printed, published, and circulated in the City of San Rafael, and shall be in full force and effect thirty (30) days after its final passage

MONTGOMERY COUNTY, MARYLAND, SMOKE DETECTOR LEGISLATION BILL NO. 8-76 SMOKE DETECTION

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Be It Enacted by the County Council for Montgomery County, Maryland, that—

Sec. 1. The Montgomery County Code, 1972, Chapter 22 Title "Fire Safety Code" be and hereby is amended by adding thereto a new Section 22-96, Title, "Smoke Detectors," to read as follows:

22-96. Smoke Detectors

A. *Requirement:* It shall be the responsibility of the owner of each new and existing occupied dwelling unit to install smoke detectors in each such dwelling unit as hereinafter provided. Said smoke detectors shall be capable of sensing visible or invisible particles of combustion and providing a suitable audible alarm thereof; further, they shall be installed by July 1, 1978, in the manner hereinafter provided (unless any other provision of County, State or Federal law shall require installation before that date). Failure to install smoke detectors as and where required by said date will subject the property owner to the penalties set forth in Section 22-22 of the Fire Safety Code of Montgomery County.

B. *Location:* (1) At least one smoke detector shall be installed to protect each sleeping area. A sleeping area is defined as the area or areas of the family living unit in which the bedrooms (or sleeping rooms) are located. Where bedrooms or rooms ordinarily used for sleeping are separated by other-use areas (such as kitchens or living rooms, but not bathrooms or closets), they shall be considered as separate sleeping areas for the purpose of this section.

(2) At least one smoke detector shall be installed at the head (top) of each stairway leading up to an occupied area in such a manner as to assure that rising smoke is not obstructed in reaching the detector and the detector intercepts rising smoke before it reaches the sleeping area.

C. *Alternative:* As an alternative to self-contained smoke detectors, an approved fire detection system may be installed. Each fire detection system must be individually approved and a permit issued therefor by the Department of Fire and Rescue Services.

D. *Equipment:* All devices, combinations of devices, and equipment required herein are to be installed in conformance with the Building Code and this section, and approved by the Montgomery County Department of Fire and Rescue Services and listed by said Department for the purposes for

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which they are intended; said list may be subsquently amended by the Department of Fire and Rescue Services as necessary. Such approval shall be permanent unless the Director subsequently finds that the equipment is hazardous or unreliable, in which case, the Director may suspend or revoke approval. The Director may in any such case determine whether replacement of existing installation shall be required. Transfer to the inactive list shall not affect equipment approval.

E. *Installation:* In new residential dwellings, smoke detectors shall be wired directly (hard-wired) to the building's power supply. In existing dwellings within multi-family buildings of ten units or more, the detectors shall meet the multi-family building power source requirements of State law, or in the absence of State law, the requirements hereunder covering other existing dwellings. In other existing dwellings, it is preferred that smoke detectors be wired directly to the power supply, however, said detectors may be powered by self-monitored battery or operated in a plug-in outlet which is fitted with a plug restrainer device, provided the outlet is not controlled by any switch other than the main power supply.

F. *Certification at Change in Occupancy:* After July 1, 1978, at every change of occupancy of every dwelling unit occasioned by or incidental to a sale, lease or sublease of said unit, it shall be the duty of the grantor thereof (i.e., the seller, lessor or sublessor, as the case may be) to certify, before occupancy, to the new occupant that all smoke detectors as required by this section (or other applicable laws) are installed and in proper working condition. Failure to comply with this subsection shall be punishable as set forth herein; provided however, that this subsection shall not be construed to vitiate or render void any contract, lease or sublease subject thereto.

G. *Permits and Fees:* No smoke detector or alternative system shall be directly connected (permanently wired) to the electrical system of the structure unless an electrical permit shall have first been obtained from the Department of Environmental Protection or the municipal electrical permit authority having jurisdiction. The County Executive is hereby authorized to adopt a fee schedule for the issuance of said permit which shall not exceed the cost of administration of this section; further, the County Executive is authorized to waive, partially or wholly, the fee requirements at his discretion, or to issue multiple permits under the payment of a single fee.

H. *Supplemental Standards:* This section is intended to be used with and supplemented by the applicable provisions of the National Fire Protection Association Standards 72-E and 74, 1974 Editions, which are hereby incorporated herein; however, if there shall be any conflict between this statute and the said supplemental standards, this statute and any rules and regulations adopted pursuant thereto shall prevail.

Sec. 2. This section provides for an amendment to Chapter 26 of the Montgomery County Code, Title, "Housing Standards." The language in Section 2 is nearly identical in form, format and contents and is therefore not reprinted in this handout.

Sec. 3. Effective Date. This Act shall become effective on the 76th day following the date on which it becomes law.

CITY OF MINNEAPOLIS, MINNESOTA

Section 244.915. Fire Warning System. Every hotel or motel sleeping room which is not located in a building of Type I or II construction and every dwelling unit, shared bath dwelling unit, and rooming house shall be provided with an approved smoke detector as set out in this chapter. Owner occupied, single family dwellings shall be provided with approved smoke detectors meeting the requirements of any one of the following Underwriters Laboratory tests: UL167, UL168, or UL217. Smoke detectors required for single family dwellings *shall be mounted on the ceiling or wall, at a point centrally located, in the corridor or an area giving access to rooms used for sleeping purposes.* Where sleeping rooms are located on an upper level, the required detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located on the ceiling not less than 6 inches from the wall or, if located on the wall, at a point between 6 inches and 12 inches from the ceiling.

All dwelling units, hotel units, and motel units as set out in the first paragraph *when let to another,* shall be provided with a detector of products of combustion other than heat as specified in the first paragraph which *shall be permanently wired to a proper unswitched circuit.*

Smoke detectors, as set out in the first paragraph, shall also be provided in rooming houses in such numbers that when activated, the alarm is audible in all sleeping rooms and shall be provided on each and every floor used for sleeping purposes and within 15 feet of a doorway leading to every room used for sleeping purposes.

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Compliance with the requirements pertaining to rooming houses, one and two family dwellings, hotel and motel units shall be required as of January 1, 1982. Buildings containing three or more dwelling units shall be brought into compliance with the provisions of this chapter not later than January 1, 1982.

When, in the opinion of the Director of Inspections and the Chief of Fire Prevention Bureau, conditions exist which warrant the installation of smoke detectors in a shorter time period than set out in this chapter, they shall be empowered to order and secure compliance with such installation orders.

Section 244.916. Prohibited Sale. It shall be unlawful for any person to sell within the city of Minneapolis any smoke detector unless said detector meets the standards set out within this chapter. *A 'UL' label* indicating the smoke detector is listed as a fire alarm device *shall be satisfactory evidence* the detector meets the requirements of this ordinance.

CITY OF FARMERS BRANCH, TEXAS ORDINANCE NO. 1042

AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS AMENDING THE BUILDING CODE OF THE CITY OF FARMERS BRANCH, TEXAS BY AMENDING SECTION 1310 PARAGRAPH A, FIRE DETECTION SYSTEM, TO REQUIRE THAT EVERY DWELLING UNIT WITHIN AN EXISTING APARTMENT IN THE CITY OF FARMERS BRANCH SHALL MEET THE REQUIREMENTS OF SECTION 1310A WITHIN A REQUIRED TIME PERIOD; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF $200.00 DOLLARS FOR EACH OFFENSE; AND DECLARING AN EMERGENCY.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH,TEXAS:

SECTION 1. That Section 1310(a) of the City's Building Code, be, and the same is hereby amended to read as follows, to wit:

"Section 1310(a). Fire Detection Systems. Every dwelling unit within an apartment shall be provided with approved detectors of products of combustion other than heat, *listed by Underwriters Laboratories Inc. and permanently connected to a standard 120V. A.C. electrical outlet box and/or* conforming to Uniform Building Code standard No. 43-6. Detectors to be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. In an efficiency dwelling unit, the detector shall be centrally located on the ceiling of the main room. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors

shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm. Every dwelling unit within an existing apartment in the City of Farmers Branch shall meet the requirement in Section 1310(a) as amended within the time period set out as follows:

All apartment complexes and apartment houses shall have a maximum completion time of five (5) years with a minimum of twenty percent (20%) of the total number of dwelling units being completed each year. The time periods shall begin upon the effective date of this ordinance.

SECTION 2. If any section, paragraph, subdivision, clause, phrase or provision of this ordinance or of the Building Code shall be judged invalid or unconstitutional, the same shall not affect the validity of this ordinance as a whole or any part or portion thereof, other than that portion so decided to be invalid or unconstitutional.

SECTION 3. Injunctive Relief. In the addition to and cumulative of all other penalties, the City shall have the right to seek injunctive relief for any and all violations of this ordinance.

SECTION 4. Any person, firm, or corporation violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction in the Municipal Court shall be subject to a fine not to exceed Two Hundred ($200.00) Dollars for each offense, and each and every day such violation continues, it shall constitute a separate offense.

SECTION 5. The fact that the present Building Code of the City of Farmers Branch, Texas does not require every dwelling unit within an existing apartment to meet the requirements of Section 1310(a) of the City's Building Code creates an urgency and an emergency in the preservation of the public health, safety and welfare, and requires that this ordinance shall take effect immediately from and after its passage, and publication the caption of said ordinance, as the law in such case provides, and it is accordingly so ordained.

DULY PASSED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, Texas on the 3rd day of February, 1975.

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CITY OF FARMERS BRANCH, TEXAS
ORDINANCE NO. 1053

AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS AMENDING THE 1973 EDITION OF THE UNIFORM BUILDING CODE AS HERETOFORE AMENDED, AND ALSO KNOWN AS THE BUILDING CODE OF THE CITY OF FARMERS BRANCH, TEXAS; BY AMENDING SECTION 306 (a) USE OR OCCUPANCY, TO REQUIRE A CERTIFICATE OF OCCUPANCY FOR BUILDINGS OR STRUCTURES IN OCCUPANCY GROUPS A TO I INCLUSIVE; BY AMENDING SECTION 306 BY ADDING PARAGRAPH (f) GROUP I OCCUPANCY, TO REQUIRE A CERTIFICATE OF OCCUPANCY FOR DWELLINGS AND LODGING HOUSES UPON CHANGE OF OWNERSHIP OR CHANGE OF OCCUPANT; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO HUNDRED DOLLARS ($200.00) FOR EACH OFFENSE; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; AND DECLARING AN EFFECTIVE DATE OF THREE (3) MONTHS FROM THE PASSAGE OF THIS ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS:

SECTION 1. That Section 306 paragraph (a) of the 1973 edition of the Uniform Building Code, as heretofore amended and also known as the Building Code of the City of Farmers Branch, Texas, be amended to read as follows, to-wit:

Section 306(a). Use or Occupancy.
No building or structure in Groups A to I, inclusive, shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the Building Official has issued a Certificate of Occupancy therefor as provided herein.

SECTION 2. That Section 306 of the 1973 edition of the Uniform Building Code, as heretofore amended and also known as the Building Code of the City of Farmers Branch, Texas, be amended by adding paragraph (f) as follows, to-wit:

Section 306 (f). Group I Occupancy.
Upon a change of ownership or a change of occupant in a building or structure used as a dwelling or lodging house, the owner shall request a certificate of occupancy from the Building Official. The Building Official or his authorized representative shall inspect the building or structure and shall issue a certificate of occupancy stating that the building or structure complies with the requirements of Chapter 14 and ordinance no. 1038 or shall direct the owner to take such action as required to bring the building or structure into compliance with Chapter 14 and ordinance no. 1038.

SECTION 3. That all ordinances or sections of ordinances which are inconsistent or in conflict with any provisions of this ordinance are hereby repealed.

SECTION 7. The fact that the present Building Code of the City of Farmers Branch, Texas does not require a Certificate of Occupancy for Groups A to I inclusive, or a certificate of Occupancy for Group I occupancy upon change of ownership or a change of occupant, creates an urgency and an emergency in the preservation of the public health, safety and welfare, and requires that this ordinance shall take effect three months from and after its passage, and publication of the caption of said ordinance, as the law in such cases provides, and it is accordingly so ordained.

DULY PASSED by the City Council of the City of Farmers Branch, Texas on the 3rd day of February, 1975.

(Note: Sections 4-6 are identical to Section 2-4 of Ordinance No. 1042.

ORDINANCE NO. 1055

AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS, AMENDING SECTION 104 OF THE 1973 EDITION OF THE UNIFORM BUIDLING CODE, AS HERETOFORE AMENDED AND ALSO KNOWN AS THE BUILDING CODE OF THE CITY OF FARMERS BRANCH, TEXAS; BY ADDING PARAGRAPH (j) REQUIRING PRODUCTS OF COMBUSTION DETECTORS TO BE INSTALLED IN STRUCTURES HOUSING GROUP I OCCUPANCIES, WHEN ALTERATIONS, REPAIRS OR ADDITIONS TO SAID STRUCTURES EXCEED FIVE HUNDRED DOLLARS ($500.00) IN EVALUATION; PROVIDING A PENALTY OF FINE NOT TO EXCEED TWO HUNDRED ($200.00) FOR EACH OFFENSE; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; AND DECLARING AN EFFECTIVE DATE OF THREE (3) MONTHS FROM THE PASSAGE OF THIS ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS:

SECTION 1. That Section 104 of the 1973 edition of the Uniform Building Code as heretofore amended and also known as the Building Code of the City of Farmers Branch, Texas, be amended by adding paragraph (j) to read as follows:

Section 104 (j). Products of Combustion Detectors must be installed in existing structures housing

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Group I occupancies when alterations, repairs or additions, which exceed Five Hundred Dollars ($500.00) in evaluation, are made to such structures and when the alterations, repair or additions require that a building permit be obtained from the Building Official.

SECTION 2. That all ordinances or sections of ordinances which are inconsistent or in conflict with any provisions of this ordinance are hereby repealed.

SECTION 6. The fact that the present Building Code of the City of Farmers Branch, Texas, does not require products of combustion detectors to be installed in existing structures housing Group I occupancies when alterations, repairs or additions exceeding five hundred dollars ($500.00) in evaluation, are made to said structure, creates an urgency and an emergency in the preservation of the public health, safety and welfare, and requires that this ordinance shall take effect three (3) months from and after its passage, and publication of the caption of said ordinance, as the law in such cases provides, and it is accordingly so ordained.

DULY PASSED by the City Council of the City of Farmers Branch, Texas, on the 3rd day of February, 1975.

(Note: Sections 3-5 are identical to Sections 2-4 of Ordinance No. 1042).

CHESTERFIELD COUNTY, VIRGINIA

AN ORDINANCE TO AMEND AND READOPT SECTION 14.2 OF ARTICLE 14 OF THE FIRE PREVENTION CODE OF THE COUNTY OF CHESTERFIELD, VIRGINIA, PROVIDING FOR SURVEY OF PREMISES AND SPECIFICATION OF THE EQUIPMENT IN BUILDINGS DESIGNED FOR HUMAN HABITATION EXCEPT DETACHED ONE AND TWO FAMILY DWELLINGS.

BE IT ORDAINED by the Board of Supervisors of the County of Chesterfield, Virginia:

THAT Article 14, Section 14.2 of the Fire Prevention Code of the County of Chesterfield, Virginia, be and it is hereby amended and readopted to read as follows:

Section 14.2 Survey of Premises and Specification of Equipment.

The Chief of the Bureau of Fire Prevention shall survey each assembly, educational, industrial, institutional, mercantile, storage, and residential occupancy, except for detached one and two family dwellings, and shall specify suitable fire ex-

tinguishing appliances and fire detecting devices, such as, but not limited to, AC powered products of combustion detectors, as may be determined necessary by the Chief of the Bureau of Fire Prevention to provide reasonable safety to persons and property.

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MODEL CODE PROVISIONS

The activities of the various model code groups have had a major impact on the regulatory process throughout the country. The building codes of at least fifteen states are based in whole or in part upon one of the model building codes. A large number of local jurisdictions have adopted one of these codes.

The major model building codes have mandatory smoke/fire detector installation provisions for part or all of the residential occupancy classes. Similar provisions also appear in various portions of the NFPA Life Safety Code. Detector installation requirements for private dwellings can also be found in the One and Two Family Dwelling Code and HUD's Minimum Property Standards.

As a general rule, the provisions of a building code are only applicable to new construction. Existing buildings are normally regulated through other means. The Life Safety Code, however, applies to both new and existing construction. Section 1-4.1.1 of the 1976 Edition of NFPA 101 provides "This code covers both new and existing construction . . . Where there are no specific provisions . . . for existing structures, the requirements for new construction shall apply . . "

Selected Code Sections from the major model and NFPA codes have been included in the following pages.

BASIC BUILDING CODE

The current edition of the Basic Building Code, published by the Building Officials and Code Administrators International, Inc. (BOCA), was completed in 1975.

The Basic Building Code provides:

"1216.2 *Approval:* The automatic fire alarm system shall be approved for the particular application and shall only be used for detection and signaling in the event of fire. The automatic detecting devices shall be approved smoke detectors.

"1216.3 *Where required:* An automatic fire alarm system shall be installed and maintained in full operating condition in the location described in the following Sections.

"1216.3.2 *Residential (R-1) use:* In all buildings of use group R-1 (residential, hotels).

"1216.3.3 *Residential (R-2) use:* In all buildings of . . . R-2 (residential, multi-family) when seven (7) or more stories in height.

"1216.3.4 *Residential (R-2 and R-3) use:* In each dwelling unit within buildings of use groups R-2 (residential, multi-family) or R-3 (residential one- and two-family). Each dwelling unit shall be provided with a minimum of one (1) approved smoke detector sensing visible or invisible particles of combustion installed in a manner and location approved by the authority having jurisdiction. When actuated, the detector shall provide an alarm suitable to warn the occupants within the individual dwelling unit . . ."

A smoke detector is defined as an "approved, listed detector sensing visible or invisible particles of combustion." (Section 201.0—General Definitions).

Though Section 1216.3.2 for Residential (R-1) use was intended to require a detector in every sleeping room, Section 1216.3.4 was rewritten in the 1976 Amendments to the Basic Building Code to resolve any ambiguity. Section 1216.3.4 now reads:

"1216.3.4 *Residential use:* In each guest room, suite or sleeping areas of use group R-1 (residential, hotel, motel lodging house, boarding house and dormitory), dwelling unit within buildings of use groups R-2 (residential, multi-family) or R-3 (residential, one- and two-family) and R-4 (detached one- and two-family). Each dwelling unit shall be provided with a minimum on one (1) approved smoke detector installed in a manner and location approved by the authority having jurisdiction. When actuated, the detector shall provide an alarm suitable to warn the occupants within the individual dwelling unit . . ."

Though use group R-4 (detached one- and two-family dwelling) is only mentioned in the 1976 Amendment, this group was also governed under the 1975 Edition which provided:

"209.5 Use group R-4 structures: . . . All such structures may be designed in accordance with the One- and Two-Family Dwelling Code or in accordance with the requirements of this code for a use group R-3 structure."

NATIONAL BUILDING CODE

The National Building Code, 1976 Edition, is written by the American Insurance Association (AIA). This code only requires partial detection systems for residential occupancies *other than* apartments or dwellings.

The National Building Code provides:

"SECTION 380. HOTELS, DORMITORIES, LODGING AND ROOMING HOUSES

"380.11. *Fire Detection and Alarm Systems.*

"a. In buildings in which rooms are rented on a transient basis or in buildings with accommodations for 15 or more persons in which rooms are

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rented on non-transient basis, approved smoke detection systems shall be installed in corridors, hallways, public areas, and service areas . . . Activation of the smoke detection system shall automatically sound a local alarm and transmit an alarm either directly to the fire department or agency designed to receive fire alarms for the fire department, or to an approved central station.

d. In buildings with accommodations for more than 6 persons but less than 15 in which rooms are rented on a non-transient basis, approved smoke detectors which sense visible or invisible particles of combustion shall be installed at or near the ceiling in areas giving access to rooms used for sleeping purposes. The primary source of power shall be a commercial electrical power source. A "power on" visible indicator shall be provided. The alarm devices shall be rated at not less than 85 decibels at 10 feet and shall be easily audible in the rooms used for sleeping purposes."

Detectors are required, however, in each dwelling unit of Multifamily Buildings (Section 381.), Dwellings (Section 382.), and Penthouses for Residential Occupancy (Section 383.). The exact requirements are as follows:

"SECTION 381. MULTIFAMILY BUILDINGS.

"381.10. *Fire Detection and Alarm Systems*

"a. In buildings of multifamily occupancy, approved smoke detectors which sense visible or invisible particles of combustion shall be installed in each dwelling unit in areas giving access to rooms used for sleeping purposes. The primary source of power shall be a commercial electrical power source. A "power on" visible indicator shall be provided. The alarm sevice shall be rated at not less than 85 decibels at 10 feet and shall be easily audible in the rooms used for sleeping purposes.

"b. In buildings of multifamily occupancy more than 3 stories in height, but not exceeding 75 feet in height, approved smoke detection systems shall be installed in corridors, hallways, public areas and service areas . . . Activation of the smoke detection system shall automatically sound a local alarm and transmit an alarm either directly to the fire department or agency designated to receive fire alarms for the fire department, or to an approved central station."

"SECTION 382. DWELLINGS.

"382.6. *Fire Detection Systems*

"a. Not less than one approved fire detector which senses visible or invisible particles of combustion shall be installed at or near the ceiling in areas giving access to rooms used for sleeping purposes. The detector shall have a primary source of commerical electrical power. A "power on" visible indicator shall be provided. The alarm device shall be rated at not less than 85 decibels at 10 feet and shall be clearly audible in adjacent bedrooms with intervening doors closed."

SECTION 383. PENTHOUSES FOR RESIDENTIAL OCCUPANCY.

"383.5. *Fire Detection and Alarm Systems.*

"a. In penthouses for residential occupancy, approved smoke detectors which sense visible or invisible particles of combustion shall be installed in each dwelling unit in areas giving access to rooms used for sleeping purposes. The primary source of power shall be a commercial electrical power source. A "power on" visible indicator shall be provided. The alarm device shall be rated at not less than 85 decibels at 10 feet and shall be easily audible in rooms used for sleeping purposes.

"b. In penthouses for residential occupancy, approved smoke detection systems shall be installed in hallways connecting two dwelling units, or a dwelling unit and rooms for guests, or only rooms for guests . . .

"d. Activation of the smoke detection system or the fire alarm system required by the provision of Sections 385.5b . . . shall sound a local alarm and transmit an alarm either directly to the fire department or agency designated to receive fire alarms for the fire department, or to an approved central station."

Section 200 defines Smoke Detection System as " . . . a fire detection system which utilizes detectors sensing visible or invisible particles of combustion."

STANDARD BUILDING CODE

The Standard Building Code is published by the Southern Building Code Congress International, Inc. (SBCC). The 1976 Edition is the most current version.

The 1973 Edition of the Standard Building Code did not contain any requirements for installation of detectors. The current requirement evolved over a three year period.

1974 AMENDMENTS

The first provision was contained in the 1974 amendments to the 1973 Edition. A new section was added which provided:

"Section 1126 Fire Detection Systems

"Every dwelling unit within an apartment house, condominium and townhouse shall be provided with an approved listed detector, sensing visible or invisible particles of combustion, installed in accordance with the manufacturer's recommendation and listing. When actuated the detector shall provide an audible alarm."

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1975 AMENDMENTS

The 1975 amendments to the 1973 Edition broadened the scope of the Section to include dwellings and, additionally, to require detectors in the basement. The revised section stated:

"Section 1127 Fire Detection Systems

"Every dwelling and every dwelling unit within an apartment house, condominium and townhouse and every basement or cellar within such dwellings shall be provided with an approved listed smoke detector installed in accordance with the manufacturer's recommendation and listing. When actuated the detector shall provide an audible alarm."

1976 EDITION

Finally, the 1976 Edition of the Standard Building Code was revised to include hotel, motels, and other like occupancies. The section, as amended, now reads:

"Section 1127 Fire Detection Systems

"Every dwelling and every dwelling unit within an apartment house, condominium, townhouse, and every guest room in a motel and hotel, and every basement or cellar within such dwellings, shall be provided with an approved listed smoke detector, installed in accordance with the manufacturer's recommendation and listing. When activiated, the detector shall provide an audible alarm."

Smoke Detector is defined as "... an approved listed detector sensing either visible or invisible particles of combustion." (Section 201—Definitions).

UNIFORM BUILDING CODE

The Uniform Building Code is published by the International Conference of Building Officials (ICBO).

The 1973 Edition of the Uniform Building Code provided for the installation of detectors in apartments and dwellings. The pertinent sections are:

"Fire Detection and Fire-extinguishing Systems

"Sec. 1310.(a) Fire Detection Systems. Every dwelling unit within an apartment house shall be provided with approved detectors of products of combustion other than heat conforming to U.B.C. Standard No. 43-6 mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. In an efficiency dwelling unit the detector shall be centrally located on the ceiling of the main room. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm."

"Fire Warning System

"Sec. 1413. Every dwelling shall be provided with approved detectors of products of combustion other than heat conforming to U.B.C. Standard No. 43-6 mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm."

The 1976 Edition of the Uniform Building Code was amended to include hotels, motels, etc., and guest rooms in lodging houses. The amended provisions are:

"Fire Warning and Fire-extinguishing Systems

"Sec. 1310(a) Fire Warning Systems. Every dwelling unit within an apartment house and every guest room in a hotel used for sleeping purposes shall be provided with smoke detectors conforming to U.B.C. Standard No. 43-6. In dwelling units, detectors shall be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. In an efficiency dwelling unit, hotel sleeping room and in hotel suites, the detector shall be centrally located on the ceiling of the main room or hotel sleeping room. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm in the dwelling unit or guest room."

"Fire Warning System

"Sec. 1413. Every dwelling shall be provided with approved detectors of products of combustion other than heat conforming to U.B.C. Standard No. 43-6 mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm."

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The 1976 Edition of the Uniform Building Code was amended to include hotels, motels, etc., and guest rooms in lodging houses. The amended provisions are:

"Fire Warning and Fire-extinguishing Systems

"Sec. 1310(a) Fire Warning Systems. Every dwelling unit within an apartment house and every guest room in a hotel used for sleeping purposes shall be provided with smoke detectors conforming to U.B.C. Standard No. 43-6. In dwelling units, detectors shall be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. In an efficiency dwelling unit, hotel sleeping room and in hotel suites, the detector shall be centrally located on the ceiling of the main room or hotel sleeping room. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm in the dwelling unit or guest room."

and

"Fire Warning System

"Sec. 1413. Every dwelling and guest room in lodging houses shall be provided with a smoke detector conforming to U.B.C. Standard No. 43-6. The detector shall be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to rooms used for sleeping purposes. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall be located within 12 inches of the ceiling. Care shall be exercised to insure that the installation will not interfere with the operating characteristics of the detector. When actuated, the detector shall provide an alarm in the dwelling unit or guest room."

The 1976 Edition of the Uniform Building Code defines Smoke Detector as:

" . . . an approved detector which senses visible or invisible particles of combustion. The detector shall bear a label or other identification issued by an approved testing agency having a service for inspection of materials and workmanship at the factory during fabrication and assembly." (Section 420.)

ONE AND TWO FAMILY DWELLING CODE

The 1975 Edition of the One and Two Family Dwelling Code, sponsored by AIA, BOCA, ICBO, and SBCC, requires that:

"Sec. R-216. Each dwelling shall be provided with a minimum of one (1) approved, listed and labeled smoke detector sensing visible or invisible particles of combustion installed in a manner and location consistent with its listing. When actuated, the detector shall provide an alarm suitable to warn the occupants within the dwelling."

LIFE SAFETY CODE

The 1973 Edition of the Life Safety Code, published by the National Fire Protection Association (NFPA), contained no mandatory requirements for detectors in residential occupancies. The 1976 Edition of the Life Safety Code now requires detectors in apartments (Sec 11-3) and one- and two-family dwellings (Sec 11-6); in the corridors of hotels (Sec 11-2); and on each floor level of a lodging or rooming house (Sec 11-5). Detectors are not required in dormitories (Sec 11-4). The relevant sections are:

"SECTION 11-2 HOTELS

"11-2.3.3 *Detection, Alarm and Communications Systems*

"11-2.3.3.3 New buildings shall have a corridor smoke detection system (6-3.8) connected to the alarm initiation system . . . " "Exception No. 3: Existing Buildings."

"SECTION 11-3 APARTMENT BUILDINGS

"11-3.3.3 *Detection, Alarm and Communication Systems.*

"11-3.3.3.1 An approved single station smoke detector, powered by the house electrical service, shall be installed in an approved manner in every living unit within the apartment building. When activated, the detector shall initiate an alarm which is audible in the sleeping rooms of that unit. This individual unit detector shall be in addition to any sprinkler system or other detection system that may be installed in the building. For location of single station detectors, see Appendix A, Chapter 11."

"SECTION 11-5 LODGING OR ROOMING HOUSES

"11-5.3.2 *Detection System.*

"11-5.3.2.1 Approved smoke detectors, powered by the house electrical service, shall be installed in an approved manner on each floor level. When activated, the detectors shall initiate an alarm which shall be audible in all sleeping areas."

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"SECTION 11-6 ONE-AND TWO-FAMILY DWELLINGS

"11-6.3.2 *Detection and Alarm.*

"11-6.3.2.1 At least one approved smoke detector powered by the house electric service shall be installed in an approved manner in every dwelling unit. When activated, the detector shall initiate an alarm which is audible in the sleeping rooms. For location of single station detectors, see Appendix A, Chapter 11.

"Exception: In existing construction approved smoke detectors powered by batteries may be used."

The Appendix material suggests that the detectors be installed as follows:

"The detector(s) should usually be located in the hall area(s) giving access to rooms used for sleeping purposes. In multiple-level living units a detector should usually be located at the top of the stairs. The detector(s) should be mounted on the ceiling or on the wall within 12 inches of, but no closer than 6 inches to the ceiling. The detector should be placed remotely from the cooking area. Where unusual factors such as room configuration, air movement, stagnant air pockets, etc., require consideration, the authority having jurisdiction and the designer should determine the placement of the detectors."

MOBILE HOMES

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According to an August 1975 study prepared for the U.S. Department of Housing and Urban Development, the number of mobile homes used for year-round occupancy in the United States at that time was estimated to be four million units.

Expressing its desire to provide these citizens adequate, safe, and reliable housing, the Congress enacted the National Mobile Home Construction and Safety Standards Act of 1974 (42 U.S.C. 5401 et seq., Aug. 22, 1974, P.L. 93-383, Title VI, Section 601, et seq., 88 Stat. 700.) Section 5401 of Title 42 of the United States Code declares:

" . . . (T)he purposes of this title are to reduce the number of personal injuries and deaths and the amount of insurance costs and property damage resulting from mobile home accidents and to improve the quality and durability of mobile homes . . . "

Further, Congress directed that the Secretary of Housing and Urban Development:

" . . . shall establish by order appropriate Federal mobile home construction and safety standards. Each such Federal mobile home standard shall be reasonable and shall meet the highest standards of protection, taking into account existing State and local laws relating to mobile home safety and construction." (42 U.S.C. 5403(a))

HUD Regulations

Pursuant to this Act, the Department of Housing and Urban Development promulgated regulations governing mobile home construction. In particular, Section 280.208 of the Code of Federal Regulations sets the requirements for installation of smoke/fire detectors in mobile homes. These regulations are as follows:

"(Section) 280.208 Mobile home fire detection equipment.

"(a) *General.* At least one smoke detector (which may be a single-station alarm device) shall be installed in each mobile home to protect each separate bedroom area.

"(b) *Smoke detector location.* A smoke detector shall be installed in the hallway or space communicating with the bedroom area.

"(1) The specific location shall be in the hallway between the living room area and the first bedroom, except that when a door(s) separates the living area from the bedroom area, the detector shall be installed on the living area side as close to the door(s) as practicable.

"(2) Mobile homes having bedrooms separated by any one or combination of common use areas such as kitchen, dining room, living room, or family room (but not a bathroom or utility room), shall have at least two smoke detectors, one detector protecting each bedroom area.

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"(3) Where practicable, the detector shall be located between the return air intake and the living area.

"(4) The architectural planning of the mobile home shall not isolate a smoke detector so as to impair its effectiveness.

"(c) *Smoke detectors.* Smoke detectors shall be either the ionization chamber or the photoelectric wall mounted type and shall comply with all the requirements of Underwriters' Laboratories Standard No. 167 for ionization and 168 for photoelectric type detectors. Detectors shall bear the label of a testing and approval laboratory that indicates the smoke detectors have been tested and approved under the requirements of UL 167 or 168. The testing and approved laboratory shall be one which maintains a periodic follow-up service of the labeled devices to ensure compliance with the original approval.

"(d) *Installation.* Smoke detectors shall be installed on an interior wall of the mobile home. The top of the detector shall be 5- to 7-inches from the ceiling. The detector mounting shall be attached to an electrical outlet box and the detector connected by a permanent wiring method into a general electrical circuit. There shall be no switches in the circuit to the detector other than the overcurrent protective device protecting the branch circuit."

Pertinent definitions are:

" 'Mobile home' means a structure, transportable in one or more sections, which is eight body feet or more in width and is thirty-two body feet or more in length, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained therein." (24 C.F.R. 280.2(16))

" 'Single Station Alarm Device' means an assembly incorporating the smoke detector sensor, the electrical control equipment requirement, and the alarm-sounding devices in one unit." (24 C.F.R. 280.202(a)(3))

" 'Smoke Detector' means wall mounted detector of the ionization chamber or photoelectric type which detects visible or invisible particles of combustion and operates from the 120 V AC source of electrical power supply." (24 C.F.R. 280.202(a)(4))

The State and local effect

A significant feature of the National Mobile Home Construction and Safety Standards Act of 1974 is its effect upon State and local regulation of mobile homes. The Act states:

"Whenever a Federal mobile home construction and safety standard established under this title is in effect, no State or political subdivision of a State shall have any authority either to establish, or to continue in effect, with respect to any mobile

home covered, any standard regarding construction or safety applicable to the same aspect of performance of such mobile which is not identical to the Federal mobile home construction and safety standard." (42 U.S.C. 5403(d))

Therefore, all State or local legislation not consistent with the HUD regulations would be void.

There is one notable exception to the general rule that mobile homes are not subject to State or local regulation. Section 5422(a) of Title 42 of the United States Code provides:

"Nothing in this title shall prevent any State agency or court from asserting jurisdiction under State law over any mobile home construction or safety issue with respect to which no Federal mobile home construction and safety standard has been established . . ."

From the definition within the Act of the term "purchaser" as " . . . the first person purchasing a mobile home in good faith for purposes other than resale . . ." (24 U.S.C. 5402(10)), it would seem that the States would be free to regulate the sale of existing mobile homes. This, in fact, has been done in at least one state.

It must be emphasized that these Federal laws and regulations are quite new and have not been subjected to litigation and interpretation by the Courts.

ANSI and NFPA standards

Though the HUD regulations have apparently abrogated State and local laws regarding new mobile home construction, the Mobile Home Standard currently adopted by the American National Standards Institute (ANSI) is the 1974 Edition of the "Standard for Mobile Homes," (NFPA 501B-ANSI A119.1) Work is currently underway by ANSI to adopt the 1976 Edition of the NFPA Mobile Home Standard.

The NFPA and HUD mobile home standards are quite similar. A notable difference between the two is that HUD references UL 167 or UL 168 while NFPA references UL 217. These UL standards specify construction and performance criteria for smoke detectors.

The sections of the 1976 Edition of NFPA Mobile Home Standard 501B pertaining to detector installation are:

"2-21 MOBILE HOME FIRE DETECTION EQUIPMENT.

"2-21.1 *General.* At least one listed smoke detector (which may be a single station smoke detector) shall be installed in each mobile home to protect each separate bedroom area. Such smoke detectors shall meet the requirements of the Standard for Single and Multiple Station Smoke Detectors of the Underwriters Laboratories Inc. (UL217-1976).*

"* With first revision dated September 20, 1976."

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"2-21.2 *Smoke Detector Location.* A smoke detector shall be installed in the hallway or space communication with the bedroom area, and shall be mounted, where possible, between the living area and the first bedroom door on an interior wall. Where such mounting cannot be achieved due to limited interior wall space, the smoke detector shall be located as close as practical to the first bedroom door on an interior wall. Mobile homes having bedrooms separated by one or a combination of common use areas (such as a kitchen, dining room, living room, or family room [but not a bathroom or utility room]) shall have at least two smoke detectors, one smoke detector protecting each bedroom area.

"2-21.3 *Installation.* Each smoke detector shall be installed on an interior wall of the mobile home. The top of the detector shall be 5 to 7 inches (271 mm to 177 mm) from the ceiling. The smoke detector mounting shall be attached to an electrical outlet box and the detector connected by a permanent wiring method to a general purpose electrical circuit. There shall be no switch(es) in the circuit(s) to the smoke detector(s) other than the overcurrent protective device(s) protecting the branch circuit(s) . . .

"2-21.4 *Testing Instructions.* The mobile home manufacturer shall provide testing and maintenance instructions (supplied by the smoke detector manufacturer) for the information of the user.

The definition of mobile homes in NFPA 501B (Section 1-2) and the HUD regulations (24 C.F.R. 280.2(16)) are identical. "Smoke detector" and "single station smoke detector" are not explicitly defined in the NFPA Mobile Home Standard.

Smoke Detectors and Legislation is the fourth volume in a series of Smoke Detector Public Education Manuals published by the National Fire Prevention and Control Administration. Through discussion and presentation of state and local laws now in force, this volume is designed to aid concerned citizens in drafting effective smoke detector legislation.

It is recognized from the outset that no manual of this type can ever be totally exhaustive or completely current, for the passage of detectors laws and ordinances is an ongoing event. Additionally, numerous communities have unfortunately escaped our notice.

The material contained within, however, is quite representative and illustrates the large number of options available when drafting a detector law. It must always be remembered that no matter how good one's intentions may be, any law must meet basic legal and constitutional requirements, and that competent legal counsel should always be obtained.